Chapter 1 INTRODUCTION / MISSION TYPES

A. AUXILIARY AVIATION PROGRAM

1. Over the years, the Auxiliary aviation program has matured so that it now performs a variety of missions. Air Operations is a separate Division within the Operations Department. Reference (a) formalized Auxiliary aviation operations. It is represented on the National Staff by a Division Chief, Air Operations (DVC-OA). The division consists of Branch offices for: Air Flight Surgeon (BC-OAA), Aviation Management (BC-OAM), Aviation Recruitment (BC-OAR), Flight Safety (BC-OAS) and Aviation Training (BC-OAT). The branch has an active duty liaison officer at Headquarters in G-OCX-2

2. At the District level the aviation program has a District Staff Officer for Aviation (DSO-AV) and Assistant District Staff Officer's (ADSO-AV). There is also a District Flight Safety Officer, (DFSO). Auxiliary pilots, air crew and observers must be trained to the standards promulgated by reference (b). Additionally, Auxiliary pilots must maintain their civilian aviation qualifications in accordance with the Federal Aviation Regulations (FARs).

3. The success of the Auxiliary aviation program is due in large part to the coordination and liaison at the district level, with Coast Guard air stations, activities, and groups. Maintaining this important relationship and assisting these entities in joint training is essential to the Auxiliary aviation program's success.

4. While assigned to duty under orders qualified Auxiliary pilots are considered Coast Guard pilots and approved aircraft are considered Coast Guard facilities.

B. SAFETY PATROLS

1. Air safety patrols are flown over a wide expanse of water in a vigilant effort to keep our boating public safe. The efficiency of using aircraft in combination with surface craft is a responsive and cost effective way to provide the Coast Guard with a team effort. Auxiliary aircraft can cover a considerable area in a shorter time than can a surface vessel. Thus a more positive and extensive last sweep can be made prior to dark.

2. These patrols, if flown offshore, must conform to reference (b). These are daytime only missions unless otherwise allowed by reference (b).

3. For pre-flight planning purposes, both local marine and aeronautical sectional charts should be available. These charts should also be available in the aircraft during the flight to aid in navigation. These patrols are not unplanned or sightseeing rides. They should be professionally conducted and well thought out. The patrols should be designed to meet specific mission objectives determined by

the requesting Coast Guard authority, which arise from known needs. Radio guard shall be kept with the local Group or Station and an FAA flight plan shall be filed.

4. Other missions can be conducted at the same time as these flights. For example:

   a. Coast Guard personnel can be taken on board as part of an area familiarization mission.

   b. Training can be conducted with Auxiliary boats (Locate a boat and practice vectoring it).

   c. Practice doing a Search and Rescue (SAR) pattern.

   d. Participate in the Aids to Navigation and chart updating program.

5. A safety patrol may possibly be converted to a SAR mission so keep this in mind when you are planning the flight. Keep track of your fuel usage and flight time so that you can evaluate your ability to acceptance a SAR mission.

6. Although not usually equipped with direction finding equipment Auxiliary aircraft can still be used to locate activated Emergency Locator Transmitters (ELTs) or Emergency Position Radio Beacons (EPIRBs). (see Chapter 3)

C. SEARCH AND RESCUE

1. Auxiliary aircraft can be used for SAR missions with or without surface vessels. Aircraft can be used effectively for first light searches and ELT/EPIRB searches.

2. For the search and rescue mission, the combined surface/air team provides the Coast Guard with a greatly increased capability. The use of aircraft can extend the search area considerably. The search area covered in a given time by a surface/air team can be 20 times greater than that covered by surface vessels alone. Moreover, with proper planning, surface vessels can be in an optimum position to reach the vessel or person in distress when the aircraft locates it. As time is often a critical factor in the successful performance of a SAR mission, the time saved through such jointly coordinated operations will often have a major impact on the outcome of the mission.

3. On those missions where the aircraft is able to locate the exact position of the distress call, the surface vessel, which may be out of sight of the location, can be vectored directly to the scene without any unnecessary maneuvering. In many cases, with the help of knowledgeable boat crews, a vessel closer to the scene than a Coast Guard or Auxiliary facility can be vectored to the rescue. See Chapters 2 and 3 for details of a SAR mission.

D. ICE PATROLS

1. Auxiliary aircraft may be assigned missions to fly over channels or harbors to report ice conditions, vessel traffic, navigational hazards, and pollution. The reporting of discrepant aids to navigation during the patrol will be beneficial. The requesting authority should provide the air units with the proper reporting format as well as the preferred sequence or route of flight.

2. Ice Reporting: Ice reports are give as three letter groups based on the ice characteristics as listed below, plus the percentage of ice coverage e.g. "DFJ-75"

   a. Ice Types

      F – Fast ice, broken or unbroken, which is attached to the shore or the bottom

      D – Drift floating ice

   b. Ice Size

      F – Field large bodies, 50 yards or more in width

      L – Floe medium size, 10-50 yards

      P – Pancake small patches, 1-10 yards wide (usually circular with raised edges)

      B – Brash small fragments, less than 1 yard wide

      S – Slush no hardness. Accumulation of ice crystals

   c. Surface Features

      J – Jammed broken ice caught in restricted waters (Channels/harbors)

      H – Hummocked ice which has been pressed into a hard, solid mass.

      R – Re-Frozen small segments of re-frozen ice

   d. Percent of coverage

      Amount of water covered by the ice given in percent.

3. Equipment: The crew must dress in appropriate uniforms for the forecasted weather conditions expected during the flight. The aircraft must have appropriate

winter survival gear. If the aircraft is heated do not overdress. Wear layers of clothing.

4. Pre-Flight Planning:

   a. Check the full route of flight.

   b. Check conditions of airports along the route, (ice on runways, fuel availability, etc.)

   c. Airports and terrain may appear different in winter conditions, runways ice up quickly.

   d. Monitor for carbon monoxide.

   e. Taxi carefully.

   f. Run up on dry areas not on ice.

   g. Use soft field landing technique.

   h. Check wheel pants for ice/snow. It is suggested that they be removed for winter flights.

   i. Check the aircraft surfaces, pitot, vents, and antennas for ice blockage or accumulation.

   j. Check for moisture on control surfaces and hinge areas.

E. MARINE ENVIRONMENTAL PATROLS

1. Auxiliary aircraft can help the Marine Safety Offices (MSO) in this mission by patrolling/observing harbors or other areas for unreported spills and reporting their observations back to the applicable MSO. The Auxiliary aircraft provides the MSO with a dedicated aviation resource. (See Chapter 4)

F. AIDS TO NAVIGATION

1. As with many other programs, the Coast Guard Auxiliary aviation program provides assistance to the Coast Guard and other concerned federal agencies in this area to include, reporting discrepant aids to navigation, verifying private aids, and submitting chart corrections/updates. (See Chapter 5)

G. LOGISTICS/TRANSPORT/EMERGENCIES

1. Transporting of personnel and materials between locations both within and outside of the Auxiliary district is another Auxiliary function. Be aware of the regulations

concerning flights and arrival times into military fields (See Chapter 12). Keep in mind that military airfields may not have aviation gasoline suitable for your aircraft. In times of local disaster or emergencies (flood, storms, earthquake, etc.), the use of Auxiliary aircraft may be requested by outside agencies. Only the local district and/or Coast Guard air station can approve such use.

H. AREA FAMILIARIZATION

1. Auxiliary aircraft are excellent resources for familiarization of a unit's area of responsibility (AOR). Newly assigned personnel at Coast Guard groups or stations may want to take advantage of this capability. COs/OICs of cutters or ice breakers may want to get an overview of their AOR.

2. In many districts, duty standers are required to have had an AOR flight prior to standing their first watch.

I. PHOTOGRAPHIC FLIGHTS

1. Pictures of harbors, pollution spills, vessel traffic, public relations events, and environmental concerns are some of the potential uses of Auxiliary aircraft. Altitude concerns must be considered as these types of flights do not qualify under the Coast Guard Exemption Number 5614 (Appendix E, of reference (b)).

J. OTHER MISSIONS

1. Auxiliary aircraft may be used for any mission deemed appropriate by the Operational Commander, as long as the mission is not in violation of the regulations set forth in reference (b) or the current Federal Aviation Regulations (FAR).